

What is claimed is:

1. A flat-panel projection display comprising a transparent slab element and corresponding area grating, a transparent rod element with rectangular cross-section and corresponding linear grating, arranged along the edge of the slab, and a small projector, in which the projector is arranged to direct the image into the end of the rod, the linear grating is adapted to divert it into the plane of the slab, and the area grating is adapted to project it out of the slab towards a viewer.

2. A flat-panel projection display according to claim 1, in which one of the gratings is a stack of transparent plates arranged at about 45° to the incoming and outgoing light.

3. A flat-panel projection display according to claim 1, in which at least one of the gratings is embossed on the surface of the rod or the slab.

4. A flat-panel projection display according to claim 1, in which at least one of the gratings, preferably that on the slab, is holographic.

5. A flat-panel projection display according to claim 1, in which the rod and slab elements are made of glass.

6. A flat-panel projection display according to claim 1, further including mirrors arranged at the input end of the rod and parallel to its axis, so as to direct substantially the entire output of the projector into the rod.

7. A head-up display incorporating a flat-panel display as claimed in claim 1.

8. A wearable display including a flat-panel display as claimed in claim 1.